

REMARKS

This responds to the Office Action dated December 19, 2005 in the above-captioned application. Claims 1-21, 23-27 are pending. The Office Action indicated that claims 1-9 were allowed, claims 10 and 21-22 were rejected, and claims 11-19 were objected to as depending on a rejected claim. Claim 21 has been amended. Claim 22 has been canceled without prejudice. New claims 23-27 have been added. Reconsideration of the application in view of the following remarks is respectfully requested.

Formal Matters

The Office Action Summary indicates that claim 20 was rejected, but the detailed action contains no specific rejections of this claim to which applicants can respond. In fact, the first two full paragraphs on page 5 of the detailed Action suggest that claim 20 is allowable over prior art. Accordingly, applicants believe that the rejection indicated in the Office Action Summary is a typographical error, and respectfully request that the status of the claim be changed to allowed.

Claim Rejection under 35 U.S.C. §112

In the first two paragraphs on page 2 of the Detailed Action, claim 22 was rejected under 35 U.S.C. 112, second paragraph. Because the claim has been canceled, this rejection is now moot. Applicants expressly reserve their right to file one or more applications directed to the subject matter of the canceled claim.

Claim Rejections under 35 U.S.C. §§102 and 103

On page 2 of the Office Action claim 21 was rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0066646 by Shammai et al. ("Shammai"). The Examiner provided additional comments regarding the Shammai reference on pages 4 and 5 of the Office Action.

Applicants have amended claim 21 to recite (1): "inserting pressurized gas in the space between said a first piston and a second piston located in a tube having an enclosed top end and an open bottom end;" and (2) "collecting a formation fluid sample in the space between the enclosed top end of the tube and said first piston." Support for the amendments is found, for example, in the language of the original claim 21 as well as claim 1.

The general comments section of the Office Action starting at page 4 specifically stated with reference to allowed claim 1 that in Shammai the sample piston 56 does not form the sample chamber “between the enclosed top end and said sample piston”. Applicants submit that for substantially similar reasons amended claim 21, which recites “collecting a formation fluid sample in the space between the enclosed top end of the tube and said first piston”, is patentable over Shammai, and request that the rejection be withdrawn.

On pages 3 and 4 of the Office Action claim 10 was rejected as being unpatentable under 35 U.S.C. 103(a) over U.S. Patent Application Publication No. 2002/0060067 by Bolze et al. (“Bolze”). The Examiner provided additional comments regarding the Bolze reference on page 5 of the Office Action.

Bolze discloses a sample module for use in a downhole tool to obtain fluid from a subsurface formation penetrated by a wellbore. The sample module includes a sample chamber carried by the module for collecting a sample of formation fluid obtained from the formation via the downhole tool, and a validation chamber carried by the module for collecting a substantially smaller sample of formation fluid than the sample chamber. (Bolze, *Abstract*).

The Office Action alleges that Bolze discloses in Figure 13 a formation fluid sample collector that in a single bottle 110 employs two pistons (121 and 123), which were equated to applicants’ claimed charging piston and sample piston, respectively. The Office Action also alleges that the space between these two pistons forms a pressurized gas chamber 122 within the bottle, as required in claim 10. Applicants respectfully disagree.

First, applicants note that contrary to the assertion in the Office Action, cavity 122 between the pistons 121 and 123 in Figure 13 of Bolze, is filled with buffer fluid (which is incompressible liquid) and not with gas. Because Bolze does not disclose filling cavity 122 with gas, it cannot form a “pressurized gas chamber”, as asserted in the Office Action. Indeed, while the terminology used in the reference is somewhat confusing in that generally the term “fluid” may refer to both gas and liquid materials, it is clear that Bolze uses the term only in the sense of liquid, as distinguished from gas. *See, for example*, Bolze ¶100, lines 5-7 which with reference to the motion of piston 123 states that it “becomes hydraulically stopped from further travel because the can no longer escape through outlet valve 156”. This statement is inconsistent with having cavity 122 been filled with gas. Indeed, with reference to Fig. 13, Bolze’s disclosure makes it clear that cavity 122 between the two pistons, along

with sample cavity 124 are filled with liquid, while cavity 120 on the opposite end of the tube contains pressurized gas. But this pressurized gas is not between the two pistons in a sample bottle, as recited in claim 10.

This conclusion is confirmed with reference to Bolze's description of a sample chamber in Figures 4, 5A, and 5B of the reference. For example, with reference to Figure 4, Bolze states:

FIG. 4 illustrate the use of a gas charge within sample chamber 110. The gas charge is introduced beforehand via a port (not shown) in sample chamber 110 into pressurization cavity 120 and pressurizes a buffer fluid in cavity 122 through piston 121. The buffer fluid in cavity 122 in turn pressurizes the sample in collection cavity 124 through piston 123. In this example, the charging gas is charged to a set pressure before sample chamber 110 is run into the wellbore on a downhole tool depending on the expected well conditions. (Bolze, ¶73, ll. 1-10, emphasis added).

In this excerpt Bolze clearly distinguishes between gas charge and liquid buffer fluid. Further, with reference to Figure 5A, Bolze similarly discloses that "FIG. 5A illustrates piston 121 separating the charging gas in cavity 120 and the buffer fluid in cavity 122, and piston 123 separating buffer fluid cavity 122 from formation fluid collection cavity 124." (Bolze, ¶74, ll. 11-14).

As discussed above, in all embodiments disclosed by Bolze, pressurized gas is located in cavity 120, which is not between pistons 121 and 123, contrary to the allegations in the Office Action. Accordingly, applicants respectfully submit that the analysis in the Office Action rejecting claim 10 is based on incorrect reading of the reference, which does not disclose forming a pressurized chamber within the axial bore between a sample and a charging pistons.

The rejection over Bolze is improper for the additional reason that Bolze does not disclose a sample piston and a charging piston inserted into the same axial bore. In particular, as noted above, once the collection cavity 124 is filled, pistons 121 and 123 move together (*see* diagrams in Figures 13 B, C and D), and thus cannot be the "sample" and "charging" pistons of applicants' claim 10.

Applicants note that in Figure 5B and the corresponding description, Bolze discloses an alternative embodiment, "wherein nitrogen gas N is charged directly into the pressurization cavity, whereby it mixes with buffer fluid B to charge sample fluid in cavity 124 as desired." (Bolze, ¶74, ll. 15-18). However, clearly this alternative embodiment does

not even include two pistons, much less a pressurized gas chambers between such pistons, as recited in claim 10.

Based on the above, applicants respectfully submit that the rejection of claim 10 over the Bolze reference is improper and should be withdrawn. Because independent claim 10 is believed to be patentable, claims 11-19 which depend from it (and which the Examiner indicated were objected to as dependent on a rejected claim), are also allowable.

On page 4 of the Office Action, claim 21 was rejected under 35 U.S.C. 102(e) as being anticipated by Bolze.

Claim 21 has been amended to recite “inserting pressurized gas in the space between said a first piston and a second piston located in a tube having an enclosed top end and an open bottom end.” Applicants submit that amended claim 21 is patentable over Bolze for substantially the same reasons discussed above, and respectfully request that the corresponding rejection be withdrawn.

New Claims

Applicants have added new dependent claims 23-27 to further describe aspects of their invention and particularly point and distinctly claim the subject matter they regard as their invention. Support for the new claims is found, for example, in the language of original claim 22, and throughout the specification. No new matter has been added.

Conclusion

In view of the foregoing amendments and remarks, applicants respectfully submit that the present application is in condition for allowance. A favorable decision by the Examiner to that effect is respectfully requested. Should the Examiner have any questions or comments concerning this submission, or any aspect of the application, the Examiner is invited to call the undersigned at the phone number listed below.

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Respectfully submitted,



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